1990 ANNUAL REPORT OF THE BOARD OF TRUSTEES OF THE FEDERAL OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS

SUMMARY

Highlights

During calendar year 1989, the combined assets of the Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI) Trust Funds increased by $53.2 billion, reflecting, in part, the continuing growth in the economy. This growth in assets consisted of increases of $52.2 billion in the OASI Trust Fund and $1.0 billion in the DI Trust Fund. Both of these increases were significantly larger than the corresponding increases in the previous calendar year, which amounted to $40.7 billion and $0.2 billion, for the OASI and DI Trust Funds, respectively.

The trust funds are expected to continue growing for many years into the future. Based on intermediate assumptions, the combined trust funds are estimated to reach a level of about 4 to 6 times annual outgo in the next 20 to 30 years. Even if future experience is very adverse, the combined funds are estimated to increase to nearly 2 times annual outgo during the next 15 to 20 years. However, under such adverse conditions, the assets of the DI Trust Fund could decline to such a low level that financial problems with that fund would occur before the end of this decade. Thus, the DI program needs careful monitoring in the short range.

The long-range 75-year estimates indicate that, under the intermediate assumptions, the OASDI program will experience about 25 to 30 years of positive annual balances, with continuing annual deficits thereafter. Based on the intermediate alternative II-A assumptions, the positive balances in the first part of the 75-year projection period nearly offset the later deficits, so that the program, as a whole, has an actuarial deficit of 0.31 percent of taxable payroll. Based on the intermediate alternative II-B assumptions, the OASDI program has larger future deficits that yield an actuarial deficit of 0.91 percent of taxable payroll, which is 0.21 percent larger than in the 1989 report. The deficit of 0.91 percent results from an estimated income rate of 13.04 percent of taxable payroll over the 75-year projection period (including beginning trust fund balances), which is 93.5 percent of the estimated 13.95-percent cost rate. The program has traditionally been considered to be adequately financed over the next 75 years when the long-range income rate is between 95 percent and 105 percent of the long-range cost rate. However, because the estimates based on the same assumptions indicate that the program is solvent for the next 20 to 30 years, the Trustees do not recommend that any immediate action be taken to change either the financing or the benefit provisions for the OASDI program. The Board does recommend continued extensive study of possible ways to address the long-range

deficits, as well as the implications of the expected large buildup of the trust funds. The current Advisory Council on Social Security, which is mentioned below, is examining these issues and is scheduled to report its recommendations in January 1991.

During the first part of the long-range projection period, the combined OASI and DI Trust Funds are expected to accumulate rapidly to a peak fund ratio of 476 percent of annual outgo in the year 2014, based on the alternative II-B assumptions. Thereafter, the fund ratio is estimated to decline until the funds are exhausted in 2043, or 3 years earlier than estimated in last year's report. Thus, according to the alternative II-B estimates, the OASDI program will have enough funds to cover expenditures for more than 50 years into the future.

For OASI and DI, separately, the long-range actuarial balances, based on the alternative II-A assumptions, are deficits of 0.15 percent and 0.16 percent of taxable payroll, respectively. Based on the alternative II-B assumptions, the programs have actuarial deficits which are 0.69 percent and 0.22 percent of taxable payroll, respectively. Because of the size of the DI deficit, relative to its cost rate, the DI program needs careful monitoring in the long-range period, as well as in the short-range period.

The appointment of an Advisory Council on Social Security was announced by the Secretary of Health and Human Services in June 1989. Under the Social Security Act, the Advisory Council is to study and review the status of the Social Security cash benefit and Medicare programs. The Council is scheduled to submit its recommendations to the Secretary Of Health and Human Services in January 1991.

1. Program Description

The OASDI program consists of two separate parts which pay monthly benefits to workers and their families:

(1) Old-Age and Survivors Insurance (OASI) pays benefits after a worker retires and to survivors after a worker dies.

(2) Disability Insurance (DI) pays benefits after a worker becomes disabled.

The Board of Trustees of the trust funds is required by law to report annually to the Congress on the financial condition of the funds and on estimated future results. The Board is composed of five members, three of whom serve in an ex officio capacity: the Secretaries of the Treasury, Labor, and Health and Human Services. The other two positions, for which nominations are pending, are for members of the public.

Most OASDI revenue consists of contributions paid by employees, their employers, and the self-employed. (Additional contributions are paid into a separate trust fund for the Hospital Insurance part of Medicare. This summary focuses on OASDI and does not discuss Medicare.) The contribution rates are established by law. Contributions are paid on earnings not exceeding the earnings base—$51,300 in 1990.

The earnings base will rise in the future as average wages increase. The current and scheduled future OASI and DI contribution rates for employees and employers, each, are shown below (as percentages):

Year	OASI	DI	Total
1990-99	5.60	0.60	6.20
2000 and later	5.49	.71	6.20

Since 1984, a portion (not more than one-half) of OASDI benefits received by higher income beneficiaries is subject to Federal income taxation. The revenues collected as a result of this provision are transferred from the general fund of the Treasury to the trust funds.

The outgo of the OASI and DI Trust Funds consists of benefit payments and administrative expenses. Trust fund assets may not be used for any other purposes.

During periods when outgo temporarily exceeds income, trust fund assets are used to meet the shortfall. In the event of recurring shortfalls, the trust funds can allow time for legislation to be enacted to restore balance to the program. The assets of the trust funds are invested in U.S. Government securities bearing rates of interest similar to those for long-term securities issued to the general public.

2. Recent Results

During 1989, about 132 million workers made contributions to the OASDI program. At the end of September 1989, 39.0 million persons were receiving monthly benefits under the OASDI program. Administrative expenses represented about 1.1 percent of benefit payments in fiscal year 1989.

Income to the OASI and DI Trust Funds in fiscal year 1989 was $284.9 billion, while outgo was $232.5 billion. Thus, the assets of the combined funds increased by $52.4 billion during the fiscal year. A summary of the OASDI financial operations in fiscal year 1989 is shown below (in billions):

Trust fund assets at end of fiscal year 1988	$104.2
Income during year:	
Contributions	270.8
Revenue from taxation of benefits	3.8
Net interest	10.3
Total income	284.9
Outgo during year:	
Benefit payments	227.1
Administrative expenses	2.4
Transfer to Railroad Retirement program	2.9
Total outgo	232.5
Net increase in assets during year	52.4
Trust fund assets at end of fiscal year 1989	156.7

Note: Totals may not equal sums of components, due to rounding.

3. Actuarial Estimates

The annual report contains 75-year estimates of each fund's financial operations and status. Because precise prediction of the future is impossible, alternative sets of assumptions, representing a reasonable range of possible future experience, are used to make short-range and long-range estimates. Future experience could, however, fall outside the range indicated by these assumptions.

Future OASDI income and outgo will depend on a variety of economic and demographic factors, including economic growth, inflation, unemployment, fertility, and mortality. These factors affect the levels of workers' earnings and OASDI benefits, as well as the numbers of people making contributions and receiving benefits.

The estimates in this report were prepared using four alternative sets of assumptions. Two sets—alternatives II-A and II-B—are designated "intermediate." Both intermediate sets share the same demographic assumptions, but differ with respect to economic assumptions; somewhat more robust economic growth is assumed for alternative II-A than for alternative II-B. One set—alternative I—is designated as "optimistic," and another—alternative III—is designated as "pessimistic."

No single measure is used to assess the actuarial status of the OASDI funds. Short-range measures usually focus on the adequacy of reserves available to pay benefits. Long-range measures usually focus on the balance between income and outgo during the projection period as well as the adequacy of the reserves.

The *contingency fund ratio* is the usual measure of the OASDI program's ability to pay benefits on time in the near future. This ratio is the amount in the trust funds at the beginning of the year, including advance tax transfers for January, divided by that year's expenditures. Thus, if the trust fund ratio is 50 percent, the amount in the fund represents about 6 months' outgo. A ratio of at least 8 to 9 percent is required to pay benefits at the beginning of each month. At the beginning of 1990, the fund ratio for OASDI was about 74 percent.

In analyzing the actuarial status of OASDI for the next 75 years, several different measures are commonly used. The annual *income rate* is the combined OASDI employee-employer contribution rate scheduled in the law, plus the income from taxation of benefits, expressed as a percentage of taxable payroll. The annual *cost rate* is the annual outgo expressed as a percentage of taxable payroll. The annual balance, which is the difference between the annual income rate and the annual cost rate, measures the adequacy of funding in each year of the long-range projection period. If the difference is negative, the annual balance is a deficit. The level and pattern of annual positive balances and annual deficits during various periods of time within the next 75 years measure the financial strength of the program over such periods.

If a trust fund becomes exhausted during the projection period, the year in which the exhaustion occurs is an important measure of the financial condition of the fund.

Summarized income and cost rates over the 75-year projection period can be compared directly to measure the adequacy of the program's

overall level of financing during the entire long-range period. The summarized income and cost rates reflect the full effect of interest. In addition, the trust fund balance at the beginning of the projection period, expressed as a percentage of taxable payroll, is included in the summarized income rate for the 75-year period.

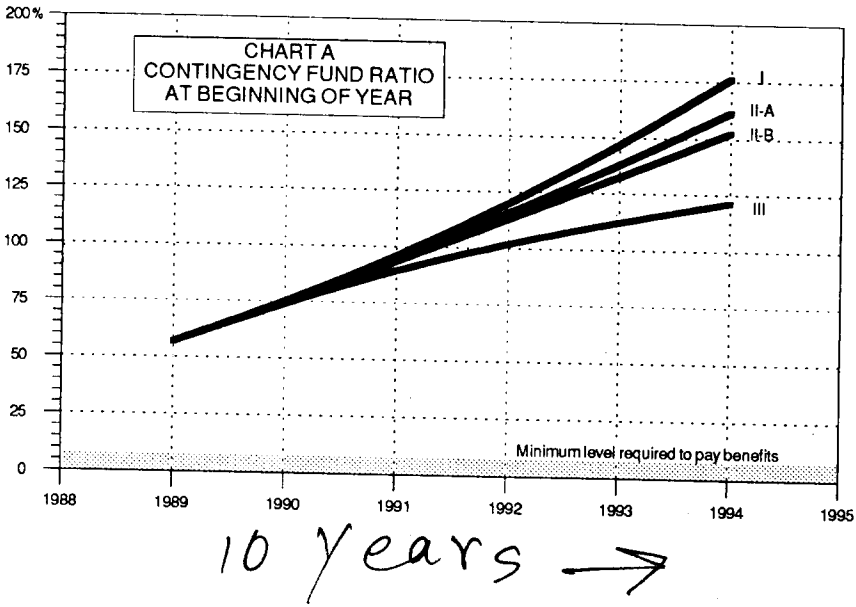
The *actuarial balance* for the 75-year long-range projection period, is the difference between the summarized estimated income rate and the summarized estimated cost rate. If this actuarial balance is negative, the program is said to have an actuarial deficit. Such a deficit is a warning that future changes may be needed in the program's financing or benefit provisions, although it does not present a complete picture without the other measures of financing discussed here.

4. Short-Range Financing (1990-94)

Estimates for the next 5 years are used to assess the adequacy of OASDI financing in the short range. In this period, the numbers of persons receiving OASDI benefits can be estimated fairly accurately. Changes in the national economy, however, which are difficult to predict, can have major effects on income and outgo.

The actuarial estimates shown in the 1990 report indicate that the combined assets of the OASI and DI Trust Funds will be sufficient to pay OASDI benefits on time throughout the 5-year period and for many years thereafter, based on all four sets of assumptions. The contingency fund ratio for the combined funds is estimated to reach at least 150 percent by the beginning of 1994 under both alternatives II-A and II-B. In addition, the estimates based on alternatives I, II-A, and II-B indicate that the OASI and DI programs, separately, can operate satisfactorily for many years. During the next 9 years, however, if experience is very adverse, such as under alternative III, the assets of the DI Trust Fund could decline to such a low level that financial problems would occur.

Chart A shows the OASDI contingency fund ratio for 1989 and the estimated OASDI ratios for 1990-94, on the basis of all four sets of assumptions. The fund ratios for the combined trust funds are estimated to increase each year.



5. Long-Range Financing (1990-2064)

Long-Range 75-year estimates for OASDI, although sensitive to variations in the assumptions, indicate the trend and general range of the program's future financial status. During this long-range period, income and outgo are greatly affected by demographic, as well as economic, conditions. Most of the beneficiaries during the next 75 years have already been born, so that their numbers are projected mainly from the present population. The numbers of workers involved in these projections, however, depend largely on future birth rates, which are subject to more variability.

Several important demographic trends are anticipated, which will raise the proportion of the aged in the population during the next 75 years. First, because of the large number of persons born in the two decades after World War II, rapid growth is expected in the aged population after the turn of the century. Second, assumed declines in death rates would increase the numbers of aged persons more gradually, but on a permanent basis. At the same time, birth rates, which began to decline in the 1960s and are assumed to remain relatively low in the future, would hold down the numbers of young people.

Chart B shows the long-range trend in the number of covered workers per OASDI beneficiary. (The term "beneficiary" includes not only retired workers, but also disabled workers, spouses, children, and survivor beneficiaries.) Based on the intermediate assumptions, this ratio is estimated to decline gradually from 3.4 in 1989 to 3.0 in 2010. From 2010 to 2030, the estimated ratio falls rapidly to 2.0 as the number of beneficiaries increases more rapidly than the number of covered workers. After 2030, the ratio is estimated to decline gradually.

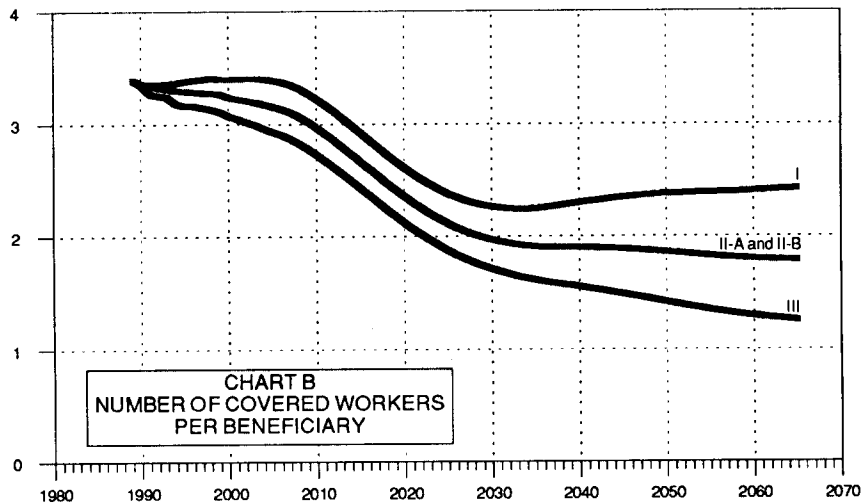


Chart C shows the estimated OASDI income and cost rates for the long-range projection period. During the first three decades of this period, the estimates indicate that the income rate will generally exceed the cost rate, resulting in substantial positive balances each year. Beginning about 2020, the reverse is true for all but the optimistic assumptions, with the cost rate exceeding the income rate, thus resulting in substantial deficits. These positive balances and deficits do not reflect interest earnings, which result in trust fund growth continuing for about 10 years after the first actuarial deficits occur. The cost rate is estimated to increase rapidly after the first half of the 75-year projection period, primarily because the number of beneficiaries is projected to increase more rapidly than the number of covered workers.

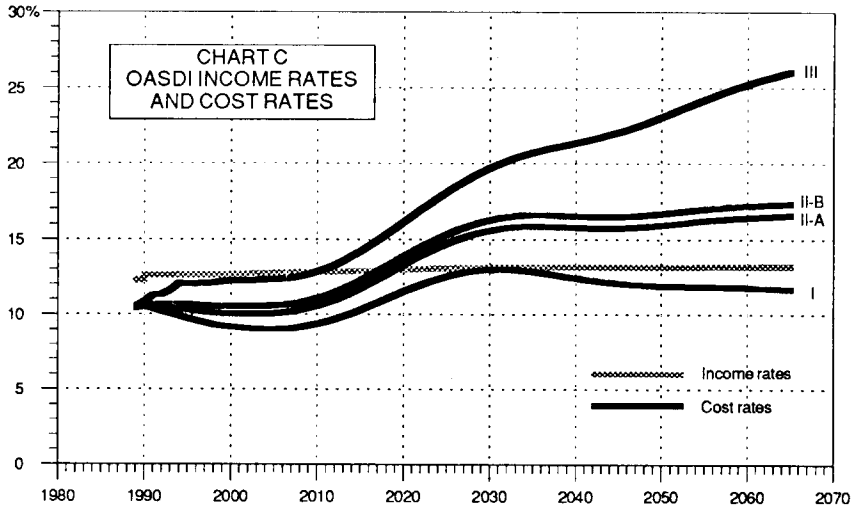
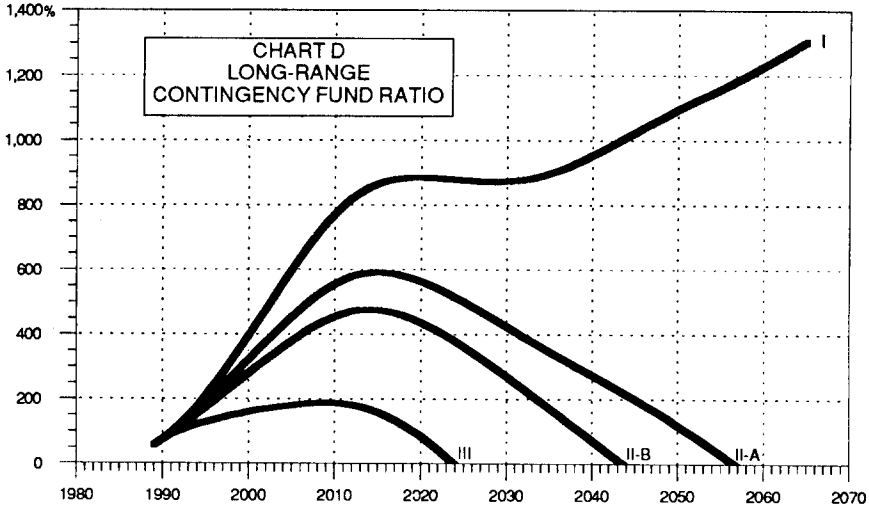


Chart D shows the projected OASDI contingency fund ratios for the 75-year period. The ratio rises steadily and reaches 476 percent in 2014, based on the intermediate alternative II-B assumptions; then the ratio declines until the combined funds are exhausted in 2043. The importance of the trust funds' accumulation of reserves is emphasized by Chart D. As the chart shows, the build-up in the reserves will be needed later on to pay benefits to the increasing numbers of retired persons who were born in the high birth-rate years from the mid-1940s to the mid-1960s.



The table below presents a comparison of the annual income and cost rates for the 75-year long-range projection period, based on the four sets of assumptions. The figures are expressed as percentages of taxable payroll.

Assumptions	Income rate	Cost rate	Actuarial balance
Optimistic I	12.91	11.15	1.76
Intermediate II-A	13.01	13.32	–.31
Intermediate II-B	13.04	13.95	–.91
Pessimistic III	13.19	17.06	–3.87

Note: Income rate, cost rate, and actuarial balance are defined in the text.

The long-range OASDI actuarial deficit of 0.91 percent of taxable payroll, based on the intermediate II-B assumptions, results from an income rate of 13.04 percent of taxable payroll over the 75-year period (including beginning trust fund balances) and a cost rate of 13.95 percent over the period. In the absence of other changes, the long-range actuarial balance will tend to worsen slowly in future annual reports, as the valuation period moves forward and additional distant years of deficit are included in the valuation. The actuarial deficits in the later years of the 75-year projection period are caused primarily by the demographic trends described above, in combination with a flat contribution rate schedule.